

Applicants: Vadiraja Murthy and Edward R. Burns
Serial No.: 08/421,079
Filed : April 13, 1995
Page 2

Please amend the subject application as follows:

In the Specification:

On page 3, lines 10 and 27, page 7, line 29, and page 10, line 12, replace "Cobas-fara" with --Cobas-FARA--.

In the Claims:

Please amend Claims 1, 2, 4, 8, 9 and 13-15 pursuant to 37 C.F.R. §1.121 by inserting the underlined material and deleting the bracketed material as follows:

--1. (amended) A method for detecting the presence of hemolyzed erythrocytes in a serum sample [blood] comprising detecting erythrocyte adenylate kinase in ^{activity} said [a serum] sample [from said blood].--

A *the presence of EAK, being indicative of hemolysis in said serum sample*
--2. (amended) A method for detecting the presence of *Serum* hemolyzed erythrocytes in a serum sample comprising [The method of *Serum* Claim 1, wherein said erythrocyte adenylate kinase, if present, is detected by] the steps of:

(a) electrophoresing said serum sample in a gel matrix so that erythrocyte adenylate kinase migrates to a known location on said gel matrix;

Applicants: Vadiraja Murthy and Edward R. Burns
Serial No.: 08/421,079
Filed : April 13, 1995
Page 3

(b) contacting said gel matrix with an adenylate kinase-specific visualization reagent which reacts with said erythrocyte adenylate kinase and causes emission of fluorescence upon exposure of said gel matrix to ultraviolet light;

(c) exposing said gel matrix to ultraviolet light; and

(d) detecting emission of fluorescence at said known location on said gel matrix, emission of said fluorescence at said known location being indicative of hemolyzed erythrocytes present in said serum sample [said erythrocyte adenylate kinase].--

--4. (amended) A method for detecting the presence of hemolyzed erythrocytes in a serum sample comprising [The method of Claim 1, wherein said erythrocyte adenylate kinase is detected by] contacting said serum sample with an antibody which specifically binds to erythrocyte adenylate kinase and detecting the formation of a complex between said erythrocyte adenylate kinase and said antibody.--

--8. (amended) The method of Claim 4, wherein said antibody is labelled with a radioactive label [detecting is effected by isotopic means].--

Applicants: Vadiraja Murthy and Edward R. Burns
Serial No.: 08/421,079
Filed : April 13, 1995
Page 4

A3
--9. (amended) The method of Claim 4, wherein said antibody is labelled with a non-radioactive label [detecting is effected by nonisotopic means].--

--13. (amended) A method for determining the level of [The method of Claim 12, wherein said] erythrocyte adenylate kinase in a serum sample comprising [is measured by] the steps of:

- (a) determining the total adenylate kinase activity in said serum sample;
- (b) calculating the percentage of erythrocyte adenylate kinase to said total adenylate kinase in said serum sample; and
- (c) multiplying said percentage of erythrocyte adenylate kinase by said total adenylate kinase activity.--

A4
--14. (amended) The method of Claim 13, wherein said total adenylate kinase activity is determined by mixing said serum sample with an adenylate kinase-specific visualization reagent which reacts with said total adenylate kinase causing a change in absorbance of the mixture, and measuring change in absorbance of the mixture, said change in absorbance being indicative of total adenylate kinase activity.--

Applicants: Vadiraja Murthy and Edward R. Burns
Serial No.: 08/421,079
Filed : April 13, 1995
Page 5

--15. (amended) The method of Claim 13, wherein said percentage of erythrocyte adenylate kinase to said total adenylate kinase is determined by:

(a) electrophoresing said serum sample in a gel matrix so that said erythrocyte adenylate kinase migrates to a known location on said gel matrix;

(b) contacting said gel matrix with an adenylate kinase-specific visualization reagent which reacts with said total adenylate kinase and causes emission of fluorescence upon exposure of said gel matrix to ultraviolet light;

(c) exposing said gel matrix to ultra-violet light;

(d) determining the level of total adenylate kinase by measuring total fluorescent light emitted from said gel matrix;

(e) determining the level of erythrocyte adenylate kinase by measuring fluorescent light emitted from said gel matrix at [corresponding to] said known location of said erythrocyte adenylate kinase migration on said gel matrix; and

(f) calculating said percentage of erythrocyte adenylate kinase to said total adenylate kinase by dividing said level of erythrocyte adenylate kinase by said level of total adenylate kinase.--